

# EX15 Incremental Encoder

BEI Sensors



The EX15 Series was developed to provide a high precision, enclosed shaft encoder for light duty and small applications. The EX15 boasts 1024 line counts in a miniature 1.54" diameter package.

Capable of operating over a temperature range of 0C to +70C without degradation of signals, the EX15 Series provides superior, commercial grade performance.

A standard two-year warranty and proven design makes the EX15 a valuable product for OEM applications.

## Mechanical Specifications

Diameter: 1.54" Height: 1.45"  
Shaft Size: .25"  
Weight: 3 ounces  
Acceleration: 200,000 rad./sec. Max  
Shaft Load: Axial 5lb. Radial 5lb.  
Torque: Less than 0.5 ounce inch  
Bearings: Sealed ABEC 3

## Motor Interface

Mounting Holes: 4 places #4-40 @ 90° on 1.10" B.C.  
Servo Mount: designed to accommodate motor mount cleat "PIC type" L2-2  
Shaft Coupling: must be flexible (do not hard mount)

## Electrical Specifications

Code: Incremental  
Output Format: dual channel quadrature, min. edge separation 45°  
Output Type EX152/EX153: Square wave TTL & CMOS. 16mA sink. 500  $\mu$  A source short circuit protected  
Output Type EX156: TTL differential line driver (26LS31) or equivalent should be terminated into a line receiver (26LS32) or equivalent circuit  
Frequency Response: see figure 7  
Rise Time: less than 1.0  $\mu$  sec.

## Environmental Specifications

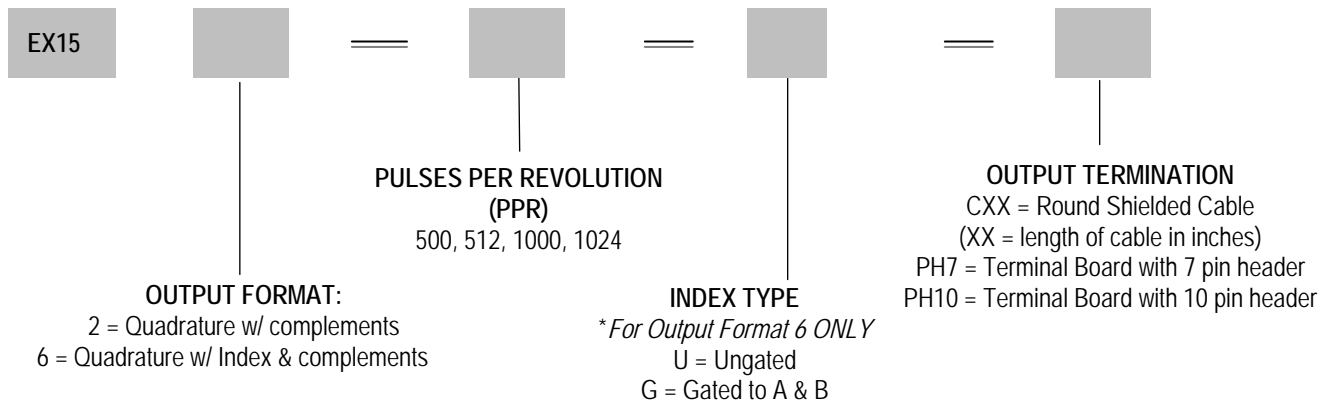
Enclosure: Unsealed housing. Unit must be protected from harsh environments.  
Temperature: Operating, 0° to 70° C;  
Storage, -20° to 105° C

## Termination Specifications

Type: See Figures 1 through 6  
Pinout: See pinout section

## EX15 Incremental Ordering Options for assistance, call 800.350.2727

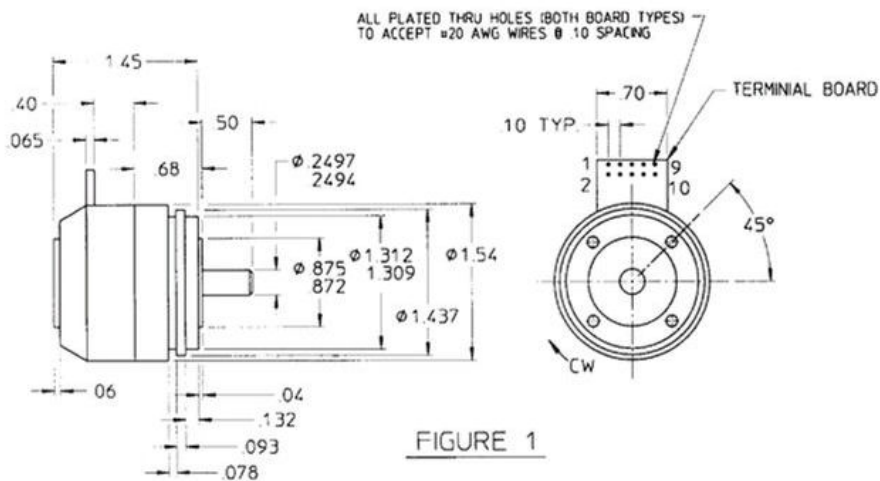
Use this diagram, working from left to right to construct your model number (example: EX152-500-G-PH7)



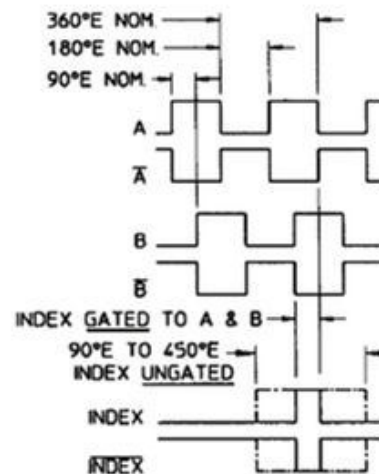
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## Dimensions



## Output Wave Form



OPTIONAL HEADER (H)  
MOLEX #22-23-2071

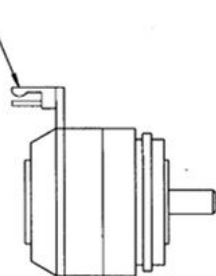
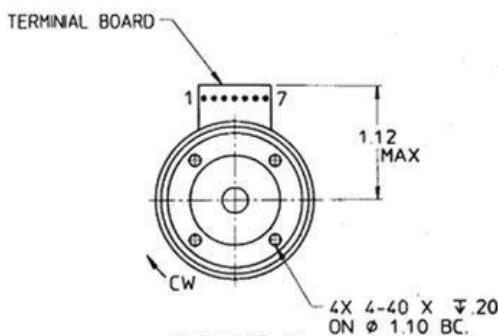
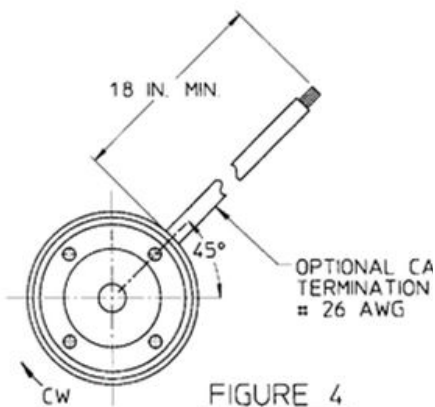
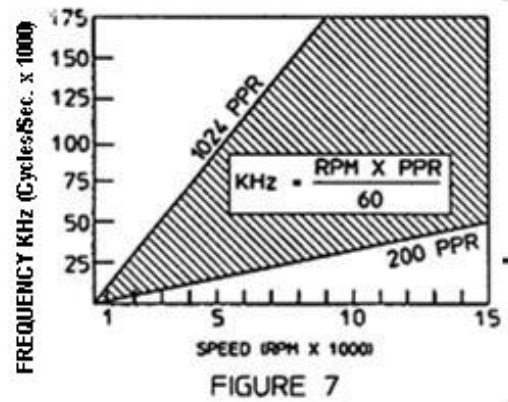


FIGURE 2  
EX152



## Frequency Response



OPTIONAL HEADER (H)  
DUPONT #67996-510

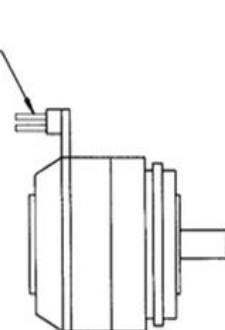
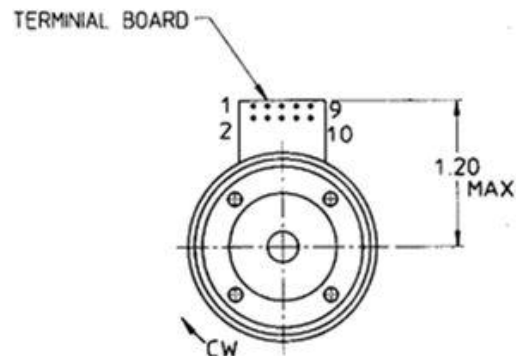


FIGURE 5  
(EX156)



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